

## Anti-RecA antibody

Immunized Animal: Rabbit

Polyclonal antiserum

61-003 50  $\mu$ l, 61-004 250  $\mu$ l

*E. coli* RecA protein plays critically important roles in homologous recombination, recombination repair and regulation of cellular responses to DNA damage (SOS response). RecA promotes auto-cleavage of LexA repressor by its coprotease activity after DNA damage, and induces many proteins related to DNA repair, including RecA itself (1).

The product was prepared by immunizing rabbit with the recombinant protein, which was over-expressed in *E. coli*, and highly purified by chromatography.

Using this antiserum in Western blotting, the band of 38 kD corresponding to RecA was obtained from the extract of *E. coli* cells (Fig. 1).

### Applications

- 1) It can be used in Western blotting or ELISA for the detection and titration of *E. coli* RecA protein for the studies of SOS regulation (2, 3). For western blotting, use the serum at ~1,000 dilution.
- 2) Since RecA has many functions and interacts with various proteins in the cell, the protein complexes can be detected by immuno-precipitation with the anti-RecA antibody.
- 3) RecA forms foci on nucleoids in the cells after exposure to DNA damaging treatments. The foci is visualized by immuno-staining of the cells using this antibody as the first antibody.

### Specification

Form: antiserum added with 0.05% sodium azide

Storage: 4°C for short period (~a half year).

For longer period, store at -80°C

### References

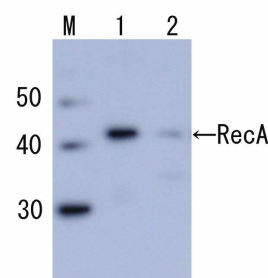
1. Friedberg EC, et al. DNA Repair and Mutagenesis 2<sup>nd</sup> ed., ASM Presss (2005)
2. Hishida T, et al., Genes Dev. 18, 1886-1897 (2004)
3. Shibata T, et al. Genes Cells 10, 181-191 (2005)

Fig. 1 Detection of *E. coli* RecA by Western blotting using anti-RecA antibody

Lane 1, Purified RecA.

Lane 2, Extract of *E. coli* AB1157.

The antiserum was diluted 3,000 fold before use.



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